

p- β -Amyloid (Thr 668): sc-101632

BACKGROUND

Proteolytic cleavage of the Amyloid protein precursor (APP) gives rise to the β -Amyloid and Amyloid A4 proteins, which are present in human platelets. Amyloid deposition is associated with type II diabetes, Down syndrome and a variety of neurological disorders, including Alzheimer's disease. The Amyloid precursor protein (APP) undergoes alternative splicing, resulting in several isoforms. Proteolytic cleavage of APP leads to the formation of the β -Amyloid/Amyloid A4 protein, which plays a role in the formation of neurofibrillary tangles and plaques that characterize the senile plaques of Alzheimer's patients. In humans, β -Amyloid can be phosphorylated at a variety of locations, such as Thr 668. This phosphorylation can modulate the function of β -Amyloid. APLP1 (Amyloid precursor-like protein 1) and APLP2 are structurally similar to APP. Human APLP2 is a membrane-bound sperm protein that contains a region highly homologous to the transmembrane-cytoplasmic domains of APP found in brain plaques of Alzheimer's disease patients.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: APP (human) mapping to 21q21.3; App (mouse) mapping to 16 C3.3.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

p- β -Amyloid (Thr 668) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Thr 668 of β -Amyloid of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p- β -Amyloid (Thr 668) is recommended for detection of Thr 668 phosphorylated β -Amyloid of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1–2 μ g per 100–500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for APP siRNA (h): sc-29677 and APP siRNA (m): sc-29678.

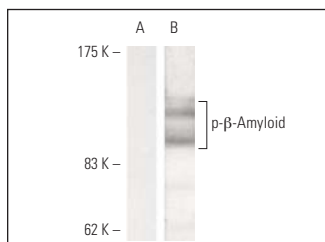
Molecular Weight of p- β -Amyloid: 4-46 kDa.

Positive Controls: mouse brain tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Western blot analysis of phosphorylated β -Amyloid expression in mouse brain tissue extracts (A, B). Blots were probed with p- β -Amyloid (Thr 668): sc-101632 preincubated with cognate phosphorylated peptide (A) and p- β -Amyloid (Thr 668): sc-101632 (B).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.